


# 1. Create the following directories and files following the hierarchy structure

HR, Operations, Finance (create directories) Test1, Test2, Test3, Operation1, Operation2, Finance1, Finance2 (create files)

```
root@ip-172-31-42-107: /home/user1/HR
File Edit View Search Terminal Help
ubuntu@ip-172-31-42-107:/home$ su
Password:
root@ip-172-31-42-107:/home# mkdir user1
root@ip-172-31-42-107:/home# ls
mentor  ubuntu  user1
root@ip-172-31-42-107:/home# cd user1
root@ip-172-31-42-107:/home/user1# mkdir Finance
root@ip-172-31-42-107:/home/user1# mkdir Operations
root@ip-172-31-42-107:/home/user1# mkdir HR
root@ip-172-31-42-107:/home/user1# cd Finance
root@ip-172-31-42-107:/home/user1/Finance# cat > Finance1
root@ip-172-31-42-107:/home/user1/Finance# touch > Finance2
touch: missing file operand
Try 'touch --help' for more information.
root@ip-172-31-42-107:/home/user1/Finance# touch Finance2
root@ip-172-31-42-107:/home/user1/Finance# ls
Finance1  Finance2
root@ip-172-31-42-107:/home/user1/Finance# cd ../
root@ip-172-31-42-107:/home/user1# cd Operations
root@ip-172-31-42-107:/home/user1/Operations# touch Opeartion1
root@ip-172-31-42-107:/home/user1/Operations# touch Opeartion2
root@ip-172-31-42-107:/home/user1/Operations# ls
Opeartion1  Opeartion2
root@ip-172-31-42-107:/home/user1/Operations# cd ../
root@ip-172-31-42-107:/home/user1# cd HR
root@ip-172-31-42-107:/home/user1/HR# touch tesr1
root@ip-172-31-42-107:/home/user1/HR# touch test2
root@ip-172-31-42-107:/home/user1/HR# touch test3
root@ip-172-31-42-107:/home/user1/HR# mv tesr1 test1
root@ip-172-31-42-107:/home/user1/HR# ls
```

```
Menu 
root@ip-172-31-42-107: /home/user1
File Edit View Search Terminal Help
root@ip-172-31-42-107: /home/user1# ls
Finance HR Operations
root@ip-172-31-42-107: /home/user1# ls -l
total 12
drwxr-xr-x 2 root root 4096 Jul 31 19:20 Finance
drwxr-xr-x 2 root root 4096 Jul 31 19:24 HR
drwxr-xr-x 2 root root 4096 Jul 31 19:22 Operations
root@ip-172-31-42-107: /home/user1# ls -R -l
.:
total 12
drwxr-xr-x 2 root root 4096 Jul 31 19:20 Finance
drwxr-xr-x 2 root root 4096 Jul 31 19:24 HR
drwxr-xr-x 2 root root 4096 Jul 31 19:22 Operations

./Finance:
total 0
-rw-r--r-- 1 root root 0 Jul 31 19:19 Finance1
-rw-r--r-- 1 root root 0 Jul 31 19:20 Finance2

./HR:
total 0
-rw-r--r-- 1 root root 0 Jul 31 19:23 test1
-rw-r--r-- 1 root root 0 Jul 31 19:23 test2
-rw-r--r-- 1 root root 0 Jul 31 19:23 test3

./Operations:
total 0
-rw-r--r-- 1 root root 0 Jul 31 19:22 Opeartion1
-rw-r--r-- 1 root root 0 Jul 31 19:22 Opeartion2
root@ip-172-31-42-107: /home/user1#
```

2. Copy the test1 file from HR directories to Finance directories

```
root@ip-172-31-42-107: /home/user1# cd HR
root@ip-172-31-42-107: /home/user1/HR# cp test1 /home/user1/Finance
root@ip-172-31-42-107: /home/user1/HR# ls
test1 test2 test3
root@ip-172-31-42-107: /home/user1/HR# cd ../
root@ip-172-31-42-107: /home/user1# cd Finance
root@ip-172-31-42-107: /home/user1/Finance# ls
Finance1 Finance2 test1
root@ip-172-31-42-107: /home/user1/Finance#
```

3. Create a directory called Account under the Finance directory
4. Create files Account1.csv, Account2.csv under Account directory


```
root@ip-172-31-42-107:/home/user1/Finance# mkdir Account
root@ip-172-31-42-107:/home/user1/Finance# cat > Account1.csv
ParticularName,ExpensesDate,Amount
Busfare,12-jul-2005,2000
coffeefare,10-apr-2010,5000
cabfare,12-jul-2015,8000
snacks,10-apr-2018,10000
dinner,10-apr-2018,7000
breakfast,10-jun-2015,3500
root@ip-172-31-42-107:/home/user1/Finance# cat > Account2.csv
user_name,name,job_title,office_phone,state,country
chris@contoso.com,chris green,it manager,123-555-1211,WA,USA
ben@contoso.com,ben andrews,it manager,123-555-1212,TX,USA
david@contoso.com,david longmuir,it lead,123-555-1213,CH,India
cynthia@contoso.com,cynthia carey,it teamlead,123-555-1214,DL,India
Mellissa@contoso.com,Mellisaa Macbeth,it teamlead,123-555-1215,WA,USA
root@ip-172-31-42-107:/home/user1/Finance# mv Account1.csv ./Account
root@ip-172-31-42-107:/home/user1/Finance# ls
Account Account2.csv Finance1 Finance2 test1
root@ip-172-31-42-107:/home/user1/Finance# mv Account2.csv ./Account
root@ip-172-31-42-107:/home/user1/Finance# ls
Account Finance1 Finance2 test1
root@ip-172-31-42-107:/home/user1/Finance# cd Account
root@ip-172-31-42-107:/home/user1/Finance/Account# ls
Account1.csv Account2.csv
root@ip-172-31-42-107:/home/user1/Finance/Account#
```

5. Copy all the entire structure of Finance directory to Operation directory
6. Rename Account2.csv to Employee.csv
7. Move the file Test1 to Operations
8. Move all the files from HR directory Operation directory



```
Menu
root@ip-172-31-42-107: /home/user1/Operations
File Edit View Search Terminal Help
Account Account2.csv Finance1 Finance2 test1
root@ip-172-31-42-107:/home/user1/Finance# mv Account2.csv ./Account
root@ip-172-31-42-107:/home/user1/Finance# ls
Account Finance1 Finance2 test1
root@ip-172-31-42-107:/home/user1/Finance# cd Account
root@ip-172-31-42-107:/home/user1/Finance/Account# ls
Account1.csv Account2.csv
root@ip-172-31-42-107:/home/user1/Finance/Account# cd ../../
root@ip-172-31-42-107:/home/user1# cp Finance -R ./Operations
root@ip-172-31-42-107:/home/user1# cd Operations
root@ip-172-31-42-107:/home/user1/Operations# ls
Finance Opearion1 Opearion2
root@ip-172-31-42-107:/home/user1/Operations# cd Finance
root@ip-172-31-42-107:/home/user1/Operations/Finance# cd Account
root@ip-172-31-42-107:/home/user1/Operations/Finance/Account# mv Account2.csv Employee.csv
root@ip-172-31-42-107:/home/user1/Operations/Finance/Account# ls
Account1.csv Employee.csv
root@ip-172-31-42-107:/home/user1/Operations/Finance/Account# cd HR
bash: cd: HR: No such file or directory
root@ip-172-31-42-107:/home/user1/Operations/Finance/Account# cd /home/user1/HR
root@ip-172-31-42-107:/home/user1/HR# mv test1 ./Operations
root@ip-172-31-42-107:/home/user1/HR# mv .* ./Operations
mv: target './Operations' is not a directory
root@ip-172-31-42-107:/home/user1/HR# mv .* /home/user1/Operations
root@ip-172-31-42-107:/home/user1/HR# ls
root@ip-172-31-42-107:/home/user1/HR# cd ../
root@ip-172-31-42-107:/home/user1# cd Operations
root@ip-172-31-42-107:/home/user1/Operations# ls
Finance Opearion1 Opearion2 Operations test2 test3
root@ip-172-31-42-107:/home/user1/Operations#
```

9. Delete all the files which is present in HR directory – No files present
10. Remove the entire Finance directory from Operation directory
11. Display the content of Account2.csv
12. List all the files which is present in Finance directory except directory
13. Display all the users connected to Ubuntu

```
Menu 
root@ip-172-31-42-107: /home/ubuntu
File Edit View Search Terminal Help
Account Finance1 Finance2 test1
root@ip-172-31-42-107:/home/user1/Finance# ls -l
total 4
drwxr-xr-x 2 root root 4096 Jul 31 19:53 Account
-rw-r--r-- 1 root root 0 Jul 31 19:19 Finance1
-rw-r--r-- 1 root root 0 Jul 31 19:20 Finance2
-rw-r--r-- 1 root root 0 Jul 31 19:35 test1
root@ip-172-31-42-107:/home/user1/Finance# find . -type f
./Finance1
./test1
./Account/Account2.csv
./Account/Account1.csv
./Finance2
root@ip-172-31-42-107:/home/user1/Finance# cd /
root@ip-172-31-42-107:/# w
 20:24:37 up 1:19, 0 users, load average: 0.00, 0.03, 0.00
USER      TTY      FROM          LOGIN@   IDLE   JCPU   PCPU WHAT
root@ip-172-31-42-107:/# who
root@ip-172-31-42-107:/# cd /home
root@ip-172-31-42-107:/home# w
 20:27:16 up 1:21, 0 users, load average: 0.02, 0.04, 0.00
USER      TTY      FROM          LOGIN@   IDLE   JCPU   PCPU WHAT
root@ip-172-31-42-107:/home# cd /ubuntu
bash: cd: /ubuntu: No such file or directory
root@ip-172-31-42-107:/home# cd ubuntu
root@ip-172-31-42-107:/home/ubuntu# w
 20:27:57 up 1:22, 0 users, load average: 0.01, 0.03, 0.00
USER      TTY      FROM          LOGIN@   IDLE   JCPU   PCPU WHAT
root@ip-172-31-42-107:/home/ubuntu# who
root@ip-172-31-42-107:/home/ubuntu#
```

14. Search for all the files starting with T from the home directory

```
Menu
root@ip-172-31-42-107: /home
File Edit View Search Terminal Help
./user1/operations/test3
root@ip-172-31-42-107:/home# find . -name "T*" -type f
./ubuntu/.cache/sublime-text/Cache/TCL/Tcl.sublime-syntax.cache
./ubuntu/.cache/sublime-text/Cache/LaTeX/TeX.sublime-syntax.cache
./ubuntu/.cache/sublime-text/Cache/JavaScript/TSX.sublime-syntax.cache
./ubuntu/.cache/sublime-text/Cache/JavaScript/TypeScript.sublime-syntax.cache
./ubuntu/.cache/sublime-text/Cache/Textile/Textile.sublime-syntax.cache
./ubuntu/.config/Slack/TransportSecurity
./ubuntu/.config/Trolltech.conf
./ubuntu/.config/Postman/Partitions/b0a6b8ab-5695-4175-8885-c3361773bb1d/TransportSecurity
./ubuntu/.config/Atom/TransportSecurity
./ubuntu/.config/Code/TransportSecurity
./ubuntu/.config/google-chrome/AutofillStates/2020.11.2.164946/TC
./ubuntu/.config/google-chrome/AutofillStates/2020.11.2.164946/TN
./ubuntu/.config/google-chrome/AutofillStates/2020.11.2.164946/TM
./ubuntu/.config/google-chrome/AutofillStates/2020.11.2.164946/TD
./ubuntu/.config/google-chrome/AutofillStates/2020.11.2.164946/TO
./ubuntu/.config/google-chrome/AutofillStates/2020.11.2.164946/TV
./ubuntu/.config/google-chrome/AutofillStates/2020.11.2.164946/TL
./ubuntu/.config/google-chrome/AutofillStates/2020.11.2.164946/TZ
./ubuntu/.config/google-chrome/AutofillStates/2020.11.2.164946/TG
./ubuntu/.config/google-chrome/AutofillStates/2020.11.2.164946/TW
./ubuntu/.config/google-chrome/AutofillStates/2020.11.2.164946/TR
./ubuntu/.config/google-chrome/AutofillStates/2020.11.2.164946/TK
./ubuntu/.config/google-chrome/AutofillStates/2020.11.2.164946/TT
./ubuntu/.config/google-chrome/AutofillStates/2020.11.2.164946/TH
./ubuntu/.config/google-chrome/AutofillStates/2020.11.2.164946/TJ
./ubuntu/.config/google-chrome/Default/TransportSecurity
./ubuntu/.config/google-chrome/Default/Top Sites
./ubuntu/.config/google-chrome/Default/Trust Tokens
./ubuntu/.config/google-chrome/Default/Sessions/Tabs 13303566194346333
home root@ip-172-31-42-10... Operations
```

## 15. Create hidden file called "Test" under Finance directory

```
root@ip-172-31-42-107:/home# cd ./user1/Finance
root@ip-172-31-42-107:/home/user1/Finance# touch .test
root@ip-172-31-42-107:/home/user1/Finance# ls
Account Finance1 Finance2 test1
root@ip-172-31-42-107:/home/user1/Finance# ls -a
. .test Account Finance1 Finance2 test1
root@ip-172-31-42-107:/home/user1/Finance#
home root@ip-172-31-42-10... Operations
```



## 16. Filters

- a. Perform following operations with Account2.csv
- Display the Name in sorted order
  - Display the no of employees staying in India
  - Display the content in upper case
  - Display all the Name starting with "B"

```
root@ip-172-31-42-107: /home/user1/Finance/Account
File Edit View Search Terminal Help
. . . .test Account Finance1 Finance2 test1
root@ip-172-31-42-107:/home/user1/Finance# cd Account
root@ip-172-31-42-107:/home/user1/Finance/Account# sort Account2.csv
Mellissa@contoso.com,Mellisaa Macbeth,it teamlead,123-555-1215,WA,USA
ben@contoso.com,ben andrews,it manager,123-555-1212,TX,USA
chris@contoso.com,chris green,it manager,123-555-1211,WA,USA
cynthia@contoso.com,cynthia carey,it teamlead,123-555-1214,DL,India
david@contoso.com,david longmuir,it lead,123-555-1213,CH,India
user_name,name,job_title,office_phone,state,country
root@ip-172-31-42-107:/home/user1/Finance/Account# awk '/India/ {print}' Account2.csv
david@contoso.com,david longmuir,it lead,123-555-1213,CH,India
cynthia@contoso.com,cynthia carey,it teamlead,123-555-1214,DL,India
root@ip-172-31-42-107:/home/user1/Finance/Account# cat Account2.csv tr -s "[a-z]" "[A-Z]"
> cat Account2.csv tr -s "[a-z]" "[A-Z]"^C
root@ip-172-31-42-107:/home/user1/Finance/Account# cat Account2.csv |tr -s "[a-z]" "[A-Z]"
USER_NAME,NAME,JOB_TITLE,OFFICE_PHONE,STATE,COUNTRY
CHRIS@CONTOSO.COM,CHRIS GREN,IT MANAGER,123-555-1211,WA,USA
BEN@CONTOSO.COM,BEN ANDREWS,IT MANAGER,123-555-1212,TX,USA
DAVID@CONTOSO.COM,DAVID LONGMUIR,IT LEAD,123-555-1213,CH,INDIA
CYNTHIA@CONTOSO.COM,CYNTHIA CAREY,IT TEAMLEAD,123-555-1214,DL,INDIA
MELISA@CONTOSO.COM,MELISA MACBETH,IT TEAMLEAD,123-555-1215,WA,USA
root@ip-172-31-42-107:/home/user1/Finance/Account# cat Account2.csv |grep ".*,b.*"
ben@contoso.com,ben andrews,it manager,123-555-1212,TX,USA
```

- b. Perform following operations with Account1.csv
- Display two columns (ExpensesDate,Amount)
  - Display the details of 10-Apr-2018

```
ben@contoso.com,ben andrews,it manager,123-555-1212,TX,USA
root@ip-172-31-42-107:/home/user1/Finance/Account# awk -F "\",\"* '{print $2,$3}' Account1.csv
> ^C
root@ip-172-31-42-107:/home/user1/Finance/Account# awk -F "\",\"* '{print $2,$3}' Account1.csv
ExpensesDate Amount
12-jul-2005 2000
10-apr-2010 5000
12-jul-2015 8000
10-apr-2018 10000
10-apr-2018 7000
10-jun-2015 3500
root@ip-172-31-42-107:/home/user1/Finance/Account# awk '/10-apr-2018/ {print}' Account1.csv
snacks,10-apr-2018,10000
dinner,10-apr-2018,7000
root@ip-172-31-42-107:/home/user1/Finance/Account#
```

## 17. Display all the process running in the Ubuntu system

## 18. Create two files under HR directory

- a. Sample1.txt
- b. Sample2.txt

```
root@ip-172-31-42-107:/home/user1/Finance/Account# cd /
root@ip-172-31-42-107:/# ps
  PID TTY          TIME CMD
 3046 pts/0        00:00:00 su
 3048 pts/0        00:00:00 bash
 9098 pts/0        00:00:00 ps
root@ip-172-31-42-107:/# ps -r
  PID TTY          STAT       TIME COMMAND
 9099 pts/0        R+          0:00 ps -r
root@ip-172-31-42-107:/# cd /home/user1/HR
root@ip-172-31-42-107:/home/user1/HR# touch Sample1.txt
root@ip-172-31-42-107:/home/user1/HR# touch Sample2.txt
root@ip-172-31-42-107:/home/user1/HR# ls
Sample1.txt  Sample2.txt
root@ip-172-31-42-107:/home/user1/HR#
```

## 19. Permissions


- a. Give read only permission for all the files which is in Operation directory
- b. Remove all the permission for the files which is in Finance directory
- c. Give write and execute for all the files which is in HR directory



root@ip-172-31-42-107: /home/user1/HR

File Edit View Search Terminal Help

```
root@ip-172-31-42-107:/# cd /home/user1/HR
root@ip-172-31-42-107:/home/user1/HR# touch Sample1.txt
root@ip-172-31-42-107:/home/user1/HR# touch Sample2.txt
root@ip-172-31-42-107:/home/user1/HR# ls
Sample1.txt  Sample2.txt
root@ip-172-31-42-107:/home/user1/HR# cd ../
root@ip-172-31-42-107:/home/user1# cd Operations/
root@ip-172-31-42-107:/home/user1/Operations# ls -l
total 0
-rw-r--r-- 1 root root 0 Jul 31 19:22 Opeartion1
-rw-r--r-- 1 root root 0 Jul 31 19:22 Opeartion2
-rw-r--r-- 1 root root 0 Jul 31 19:23 Operations
-rw-r--r-- 1 root root 0 Jul 31 19:23 test2
-rw-r--r-- 1 root root 0 Jul 31 19:23 test3
root@ip-172-31-42-107:/home/user1/Operations# chmod -w ./
root@ip-172-31-42-107:/home/user1/Operations# ls -l
total 0
-r--r--r-- 1 root root 0 Jul 31 19:22 Opeartion1
-r--r--r-- 1 root root 0 Jul 31 19:22 Opeartion2
-r--r--r-- 1 root root 0 Jul 31 19:23 Operations
-r--r--r-- 1 root root 0 Jul 31 19:23 test2
-r--r--r-- 1 root root 0 Jul 31 19:23 test3
root@ip-172-31-42-107:/home/user1/Operations# cd ../
root@ip-172-31-42-107:/home/user1# cd Finance/
root@ip-172-31-42-107:/home/user1/Finance# ls -l
total 4
drwxr-xr-x 2 root root 4096 Jul 31 19:53 Account
-rw-r--r-- 1 root root 0 Jul 31 19:19 Finance1
-rw-r--r-- 1 root root 0 Jul 31 19:20 Finance2
-rw-r--r-- 1 root root 0 Jul 31 19:35 test1
```

```
Menu 
root@ip-172-31-42-107: /home/user1/HR
File Edit View Search Terminal Help
-r--r--r-- 1 root root 0 Jul 31 19:23 test3
root@ip-172-31-42-107:/home/user1/Operations# cd ../
root@ip-172-31-42-107:/home/user1# cd Finance/
root@ip-172-31-42-107:/home/user1/Finance# ls -l
total 4
drwxr-xr-x 2 root root 4096 Jul 31 19:53 Account
-rw-r--r-- 1 root root 0 Jul 31 19:19 Finance1
-rw-r--r-- 1 root root 0 Jul 31 19:20 Finance2
-rw-r--r-- 1 root root 0 Jul 31 19:35 test1
root@ip-172-31-42-107:/home/user1/Finance# chmod -rwx ./
root@ip-172-31-42-107:/home/user1/Finance# ls -l
total 4
d----- 2 root root 4096 Jul 31 19:53 Account
----- 1 root root 0 Jul 31 19:19 Finance1
----- 1 root root 0 Jul 31 19:20 Finance2
----- 1 root root 0 Jul 31 19:35 test1
root@ip-172-31-42-107:/home/user1/Finance# cd ./
root@ip-172-31-42-107:/home/user1/Finance# cd ../
root@ip-172-31-42-107:/home/user1# cd HR/
root@ip-172-31-42-107:/home/user1/HR# ls -l
total 0
-rw-r--r-- 1 root root 0 Jul 31 21:40 Sample1.txt
-rw-r--r-- 1 root root 0 Jul 31 21:41 Sample2.txt
root@ip-172-31-42-107:/home/user1/HR# chmod -r ./
root@ip-172-31-42-107:/home/user1/HR# chmod +x ./
root@ip-172-31-42-107:/home/user1/HR# ls -l
total 0
--wx--x--x 1 root root 0 Jul 31 21:40 Sample1.txt
--wx--x--x 1 root root 0 Jul 31 21:41 Sample2.txt
root@ip-172-31-42-107:/home/user1/HR#
```

## 20. Create users

- a. Test1
- b. Test2

## 21. Display the command to view all the users which is existing in the system



```
Menu
root@ip-172-31-42-107: /

File Edit View Search Terminal Help
root@ip-172-31-42-107: /# cut -d: -f1 /etc/passwd | column
root      uucp      systemd-timesync      ec2-instance-connect  usbmux      gdm
daemon    proxy     messagebus            systemd-coredump      avahi        xrdp
bin        www-data  syslog                ubuntu                cups-pk-helper  mongod
sys        backup    _apt                  lxd                   pulse         tomcat
sync       list      tss                   rtkit                 speech-dispatcher  mentor
games      irc       uidd                  kernoops              nm-openvpn      mysql
man        gnats     tcpdump               lightdm                geoclue
lp         nobody    sshd                  whoopsie               saned
mail       systemd-network  landscape             dnsmasq                hplip
news       systemd-resolve  pollinate             avahi-autoipd          colord

root@ip-172-31-42-107: /# useradd Test1
root@ip-172-31-42-107: /# useradd Test2
root@ip-172-31-42-107: /# cut -d: -f1 /etc/passwd | column
root      uucp      systemd-timesync      ec2-instance-connect  usbmux      gdm
daemon    proxy     messagebus            systemd-coredump      avahi        xrdp
bin        www-data  syslog                ubuntu                cups-pk-helper  mongod
sys        backup    _apt                  lxd                   pulse         tomcat
sync       list      tss                   rtkit                 speech-dispatcher  mentor
games      irc       uidd                  kernoops              nm-openvpn      mysql
man        gnats     tcpdump               lightdm                geoclue
lp         nobody    sshd                  whoopsie               saned
mail       systemd-network  landscape             dnsmasq                hplip
news       systemd-resolve  pollinate             avahi-autoipd          colord

root@ip-172-31-42-107: /# getent passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
[ubuntu] root@ip-172-31-42-107: / [HR]
```

```
Menu
root@ip-172-31-42-107: /

File Edit View Search Terminal Help
root@ip-172-31-42-107: /# getent passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/var/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-network:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin
systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin
systemd-timesync:x:102:104:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin
messagebus:x:103:106:/:/nonexistent:/usr/sbin/nologin
syslog:x:104:110:/:/home/syslog:/usr/sbin/nologin
_apt:x:105:65534:/:/nonexistent:/usr/sbin/nologin
tss:x:106:111:TPM software stack,,,:/var/lib/tpm:/bin/false
uidd:x:107:112:/:/run/uidd:/usr/sbin/nologin
tcpdump:x:108:113:/:/nonexistent:/usr/sbin/nologin
sshd:x:109:65534:/:/run/sshd:/usr/sbin/nologin
landscape:x:110:115:/:/var/lib/landscape:/usr/sbin/nologin
[ubuntu] root@ip-172-31-42-107: / [HR]
```

## 19. Permissions

- d. Change the owner of Sample1.txt to Test2 user
- e. Change the group of Sample2.txt to Test1 user



```

root@ip-172-31-42-107:/# cd /home/user1/HR
root@ip-172-31-42-107:/home/user1/HR# ls -l
total 0
-rwx--x--x 1 root root 0 Jul 31 21:40 Sample1.txt
-rwx--x--x 1 root root 0 Jul 31 21:41 Sample2.txt
root@ip-172-31-42-107:/home/user1/HR# chown Test2 Sample1.txt
root@ip-172-31-42-107:/home/user1/HR# chgrp Test1 Sample1.txt
root@ip-172-31-42-107:/home/user1/HR# chgrp root Sample1.txt
root@ip-172-31-42-107:/home/user1/HR# chgrp Test1 Sample2.txt
root@ip-172-31-42-107:/home/user1/HR# ls -l
total 0
-rwx--x--x 1 Test2 root 0 Jul 31 21:40 Sample1.txt
-rwx--x--x 1 root Test1 0 Jul 31 21:41 Sample2.txt
root@ip-172-31-42-107:/home/user1/HR# cd ../
root@ip-172-31-42-107:/home/user1#

```

## 22. Create a compressed file for the Finance directory

```

root@ip-172-31-42-107:/home/user1# zip -r Finance.zip ./Finance
updating: Finance/ (stored 0%)
  adding: Finance/Finance1 (stored 0%)
  adding: Finance/.test (stored 0%)
  adding: Finance/test1 (stored 0%)
  adding: Finance/Account/ (stored 0%)
  adding: Finance/Account/Account2.csv (deflated 46%)
  adding: Finance/Account/Account1.csv (deflated 33%)
  adding: Finance/Finance2 (stored 0%)
root@ip-172-31-42-107:/home/user1# ls -l
total 16
drwxr-xr-x 3 root root 4096 Jul 31 20:41 Finance
-rw-r--r-- 1 root root 1648 Jul 31 22:11 Finance.zip
drwxr-xr-x 2 root root 4096 Jul 31 21:41 HR
drwxr-xr-x 2 root root 4096 Jul 31 20:14 Operations
root@ip-172-31-42-107:/home/user1#

```

